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Real Estate Economists, Appraisers and Counselors

CONSTRUCTION COSTS OF A ONE-STORY COMMERCIAL BUILDING

WE have used the following method of estimating the reproduction cost of a one-story commercial building and have found it very effective. We hope that you, too, will find it useful. You will notice that it is similar to the previously published method of estimating the reproduction cost of single-family residences and garages.

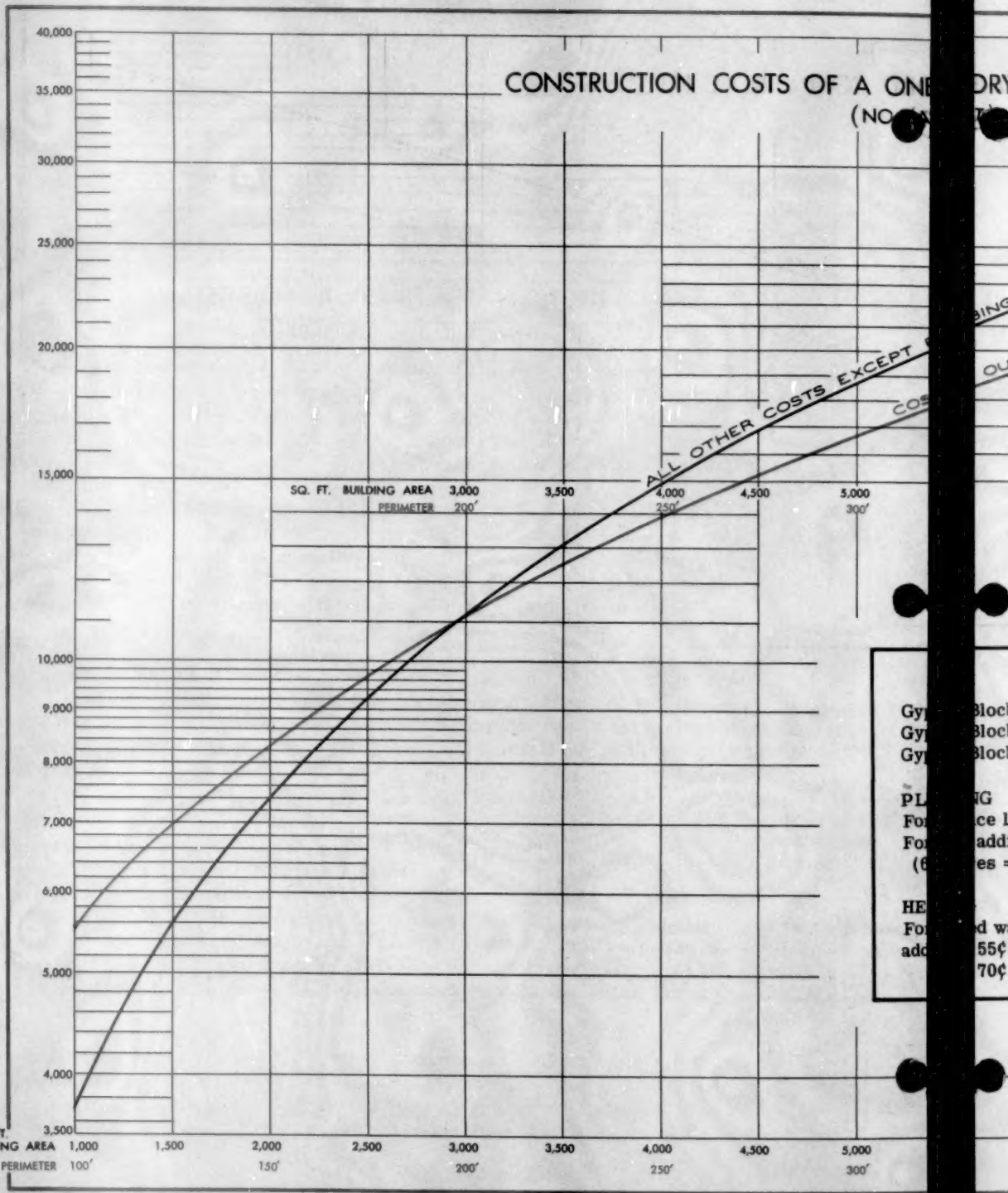
In this instance we show two lines on the chart on pages 18 and 19. The red line shows the cost of the exterior walls, including footings, foundation, masonry wall, windows and exterior doors and the plaster on the inside of the exterior walls. In a building of this type the exterior walls will cost $55.50 per running foot, so in a 40 x 60 building (200-foot perimeter), the exterior walls will cost $11,100.

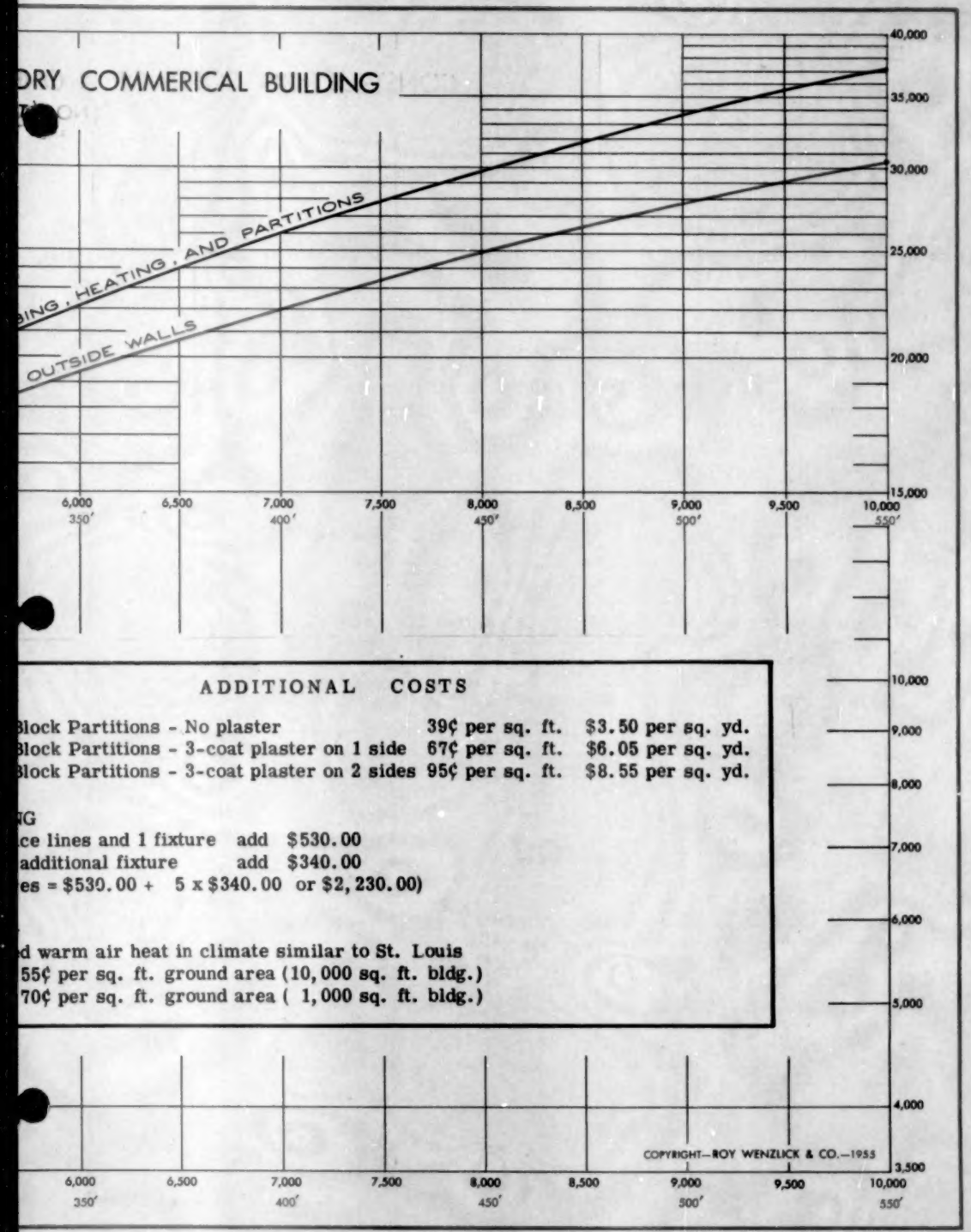
The other line on the chart shows the cost of all other items in the building except partitions, plumbing and heating costs. In other words, the blue line shows the total cost of the concrete slab (there is no basement), the asphalt tile flooring, the ceiling, insulation, steel bar joists, roof planking, roofing, electrical work, and structural steel. In this instance it amounts to a unit cost of $3.72 per square foot of ground area.

Therefore, a 40 x 60 building, with a perimeter of 200 feet and an area of 2,400 square feet, will cost (200 feet x $55.50) + (2,400 square feet x $3.72),or $11,100 + $8,925 = $20,025. To this total figure you must add the cost of the partitions, plumbing and heating, as indicated by the table of "additional costs." This table appears on the chart on page 19. Upon looking at the chart you will see that you can read the cost of the walls ($11,100) directly off the red line, and the cost of the floor, ceiling, structural steel, etc. ($8,925) directly off the blue line.

For greatest accuracy we recommend that you not use these costs for buildings with bays wider than 25 feet. When you get into a wider bay, heavier structural steel is required and the cost goes up accordingly. You should also keep in mind that these costs do not include a basement.

(cont. on page 20)


CONSTRUCTION COSTS OF A ONE
(NO
ALL OTHER COSTS EXCEPT
COS
SQ. FT. BUILDING AREA 3,000 3,500 4,000 4,500 5,000
PERIMETER 200′ 250′ 300′
40,000
35,000
30,000
25,000
20,000
15,000
10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,500
SQ. FT. BUILDING AREA 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,000
PERIMETER 100′ 150′ 200′ 250′ 300′



ADDITIONAL COSTS

Block Partitions - No plaster	39¢ per sq. ft.	$3.50 per sq. yd.
Block Partitions - 3-coat plaster on 1 side	67¢ per sq. ft.	$6.05 per sq. yd.
Block Partitions - 3-coat plaster on 2 sides	95¢ per sq. ft.	$8.55 per sq. yd.

NG

ce lines and 1 fixture add $530.00

additional fixture add $340.00

es = $530.00 + 5 x $340.00 or $2,230.00)

d warm air heat in climate similar to St. Louis

55¢ per sq. ft. ground area (10,000 sq. ft. bldg.)

70¢ per sq. ft. ground area (1,000 sq. ft. bldg.)

Briefly, the specifications of the type of building covered by these costs are as follows:

1. Reinforced concrete footings, foundation, and slab.
2. Asphalt tile floor (type B - 1/8" thick).
3. Masonry walls, 13 " thick, with face brick on front and two sides.
4. Structural steel, 6 x 6 "H" columns supporting 10". I beams which, in turn, support 16" steel bar joists 54" on center.
5. Plaster, 3 coats on walls, with acoustical plaster on ceiling.
6. Insulation, 4" rock wool in ceiling.
7. Roof, 2" metal edge gypsum plank with built-up asphalt, felt, and gravel roofing. The gabled roof is covered with variegated slate over 15# felt.
8. Electrical system, flexible conduit (BX or equivalent), with toggle-type switches and approved metal outlet boxes. No fixtures or appliances are covered by these costs.
9. Partitions not included in base costs; add as required.
10. Plumbing not included in base costs; add as required.
11. Heating not included in base costs; add as required.
12. Ceiling height = 12' .

Here is the way the costs on such buildings of various sizes work out in the St. Louis Area.

Perimeter	Area	Perimeter Costs	Area Costs	Subtotal	Plumbing and Heating	Partitions*	Total Cost	Cost Per Sq. Ft.
100'	600	$ 5,550	$ 2,232	$ 7,782	$1,220	$190	$ 9,192	$15.30
150'	1,350	8,325	5,022	13,347	1,640	285	15,272	11.30
200'	2,400	11,100	8,928	20,028	2,290	380	22,698	9.45
250'	3,750	13,875	13,950	27,825	3,450	475	31,750	8.45
300'	5,400	16,650	20,088	36,738	4,400	570	41,708	7.70
350'	7,350	19,425	27,342	46,767	5,850	665	53,282	7.25
400'	9,600	22,200	35,712	57,912	7,050	760	65,722	6.85

* For the purpose of this example, partition is assumed to be 10' high and to extend the width of the building and to be plastered on both sides.